TC-355





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Specifications

_	
Power Requirements:	AC 50 60 Hz, 100, 110, 117, 125, 220
	or 240 Voits, 30W
	(Voltage Selector provided in the set)
Tape Speeds:	7½ ips, 3¾ ips, 1½ ips (19 cm s.
	9.5 cm/s, 4.8 cm/s) with instantaneous
	selection for equalization changes
Reel:	7 inches or smaller
Recording System:	4 Track Stereophonic or monophonic
	4T Erase Head, EF18-2902H2
	4T Record Head, RP30-2902
	4T Playback Head, PP30-2902A
Frequency Response:	20~25,000 Hz at 7½ ips (19 cm/s)
•	±3 dB 30~20,000 Hz at 7½ ips (19 cm/s)
	30~17,000 Hz at 3¼ ips (9.5 cm/s)
	30 ~ 9,000 Hz at 17/4 ips (4.8 cm/s)
Flutter and Wow:	Less than 0.15% at 7½ ips (19 cm/s)
	Less than 0.25% at 3¼ ips (9.5 cm/s)
Signal-to-Noise Ratio:	Better than 52 dB at 7½ ips (19 cm/s)
-	Less than 1.6% at 7½ ips (19 cm/s)
Bias Frequency:	
	4 Track Stereophonic
(with 1.800 ft tape)	1 hr 30 min at 7½ ips (19 cm/s)
timent 1.555 to tapor	3 hrs at 3½ ips (9.5 cm/s)
	6 hrs at 1½ ips (4.8 cm/s)
	4 Track monophonic
	3 hrs at 7½ ips (19 cm/s)
	6 hrs at 3¼ ips (9.5 cm/s)
	12 hrs at 1½ ips (4.8 cm/s)
Inputs:	Microphone Inputs(2)
	Impedance, 600 Ω (will accomodate any
	microphone with 250~1KΩ impedance)
	Sensitivity, -72 dBs (0.19 mV)
	Auxiliary Inputs(2)
	Impedance, 560KΩ
	Sensitivity, -22 dBs (0.06 V)
	REC P.B Connector(1)
	Impedance, 10KΩ
	Sensitivity, -40 dBs (7.75 mV)
Outputs:	Line Outputs(2)
•	Impedance, 100KΩ
	Sensitivity, 0 dBs (0.775V)
	Headphone(1)
	Impedance, 8Ω
	Sensitivity, -28 dBs (31 mV)
	REC P.B Connector(1)
	Impedance, 10K Ω
	Sensitivity, 0 dBs (0.775 V)
Transistors:	27
Diodes:	5
Dimensions:	$15\frac{1}{16}$ " (W) × $7\frac{1}{6}$ " (H) × 14 " (D)
	1386 mm × 180 mm × 355 mm \

Technical Feature

General Description

SONY Model TC-355 is a high quality 4 Track Stereo Taperecorder Deck, which can be operated in vertical position, designed for users who have desired the most faithful recording and reproduction as a successor of SONY Model TC-350.

Weight: 22 Lbs (10 Kg)

(386 mm \times 180 mm \times 355 mm)

Solid State Amplifier and High Frequency Bias Oscillator

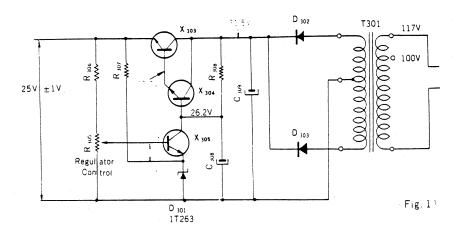
All Silicon transistors, which are used for Record Pre-Amplifier and Playback Pre-Amplifier installed in the unit, are newly developed [Advanced Passivated Mesa Silicon Transistor] in order to get extremely Low Noise and Low Harmonic Distortion. The bias frequency of the Set is as high as approximately 160 KHz which serves to obtain better S/N and lower distortion and also to prevent beat interference when recording signal from a Radio Receiver or a Tuner

Voltage Regulator Circuit

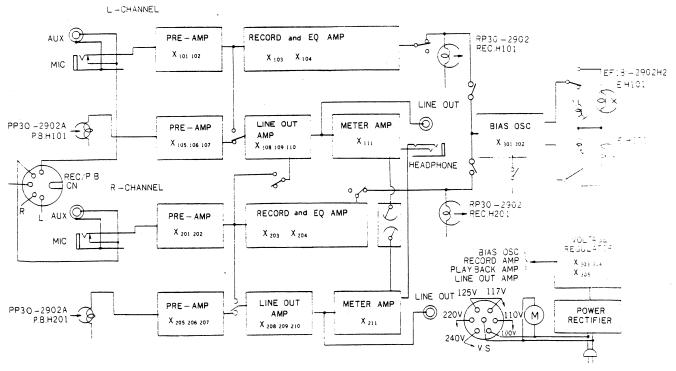
This unit is equipped with Voltage Regulator Circuit which serves to keep Electrical Characteristics (Noise Figure, Harmonic Distortion, etc.) constant against variation of power source voltage.

The circuit acts as follows:

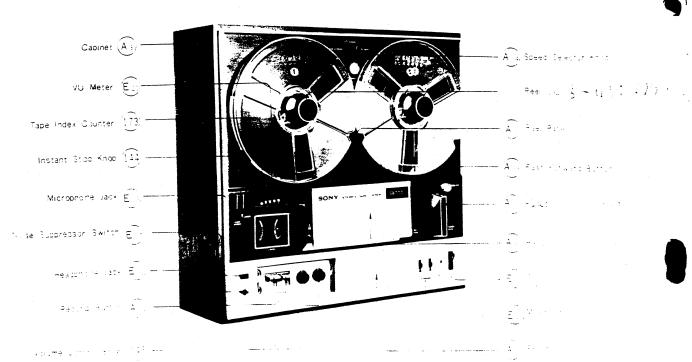
	X ₃₀₅ Base Bias	X ₃₀₅ Collector Current	X ₃₀₄ Base Bias	X ₃₀₄ Collector Current	X ₃₀₃ Base Bias	X ₃₀₃ C-E Resistance	X ₃₀₃ Emitter Voltage
Power Source Voltage increases	Increases	Increases	Decreases	Decreases	Decreases	Increases	Decreases
Power Source Voltage decreases	Decreases	Decreases	Increases	Increases	Increases	Decreases	Increases



Block Diagram

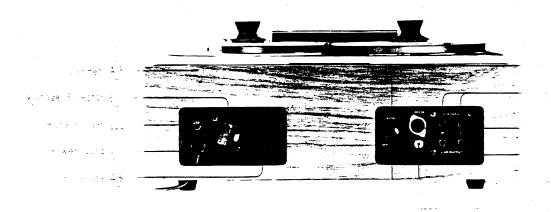


Cabinet Top View



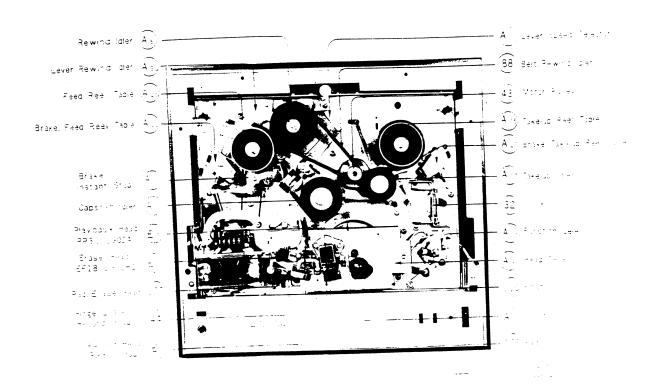
(Fig. 3)

Cabinet Back View



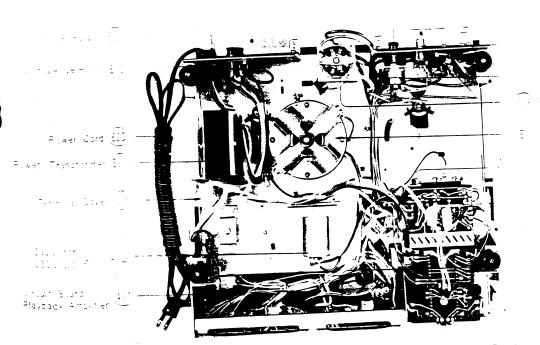
(Fig. 4)

Chassis Top View



(Fig. 5)

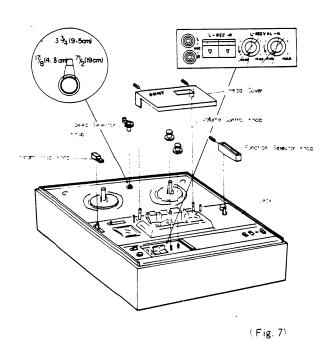
Chassis Bottome View



(Fig. 6)

Disassembly

Head Cover and Knobs Removal



Reel Panel Removal

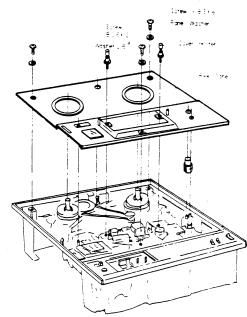
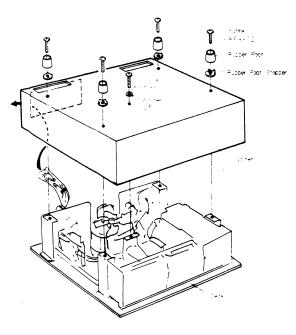


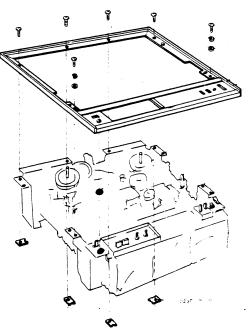
Fig. 8

Chassis Removal



(Fig. 9)

Sash Removal

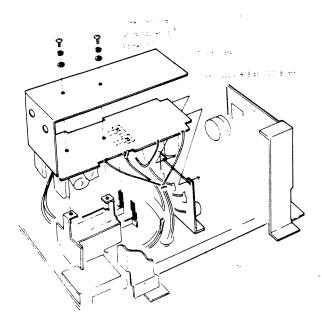


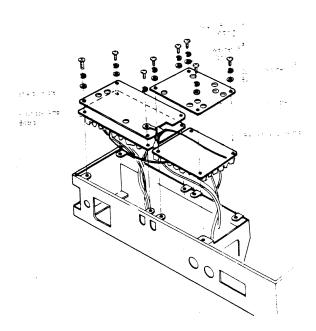
(Fig. 10

Mounted Circuit Board Removal

Power Supply and OSC Section

Record and Playback Amplifier Sections





(Fig. 11)

Fig. 12)

Modification to Different Power Line Frequency

Parts to be changed	For 50 Hz	For 60 Hz
Connection between terminals of the MP Capacitor, C310	Connect as shown in Fig. A	Connect as shown in Fig. B
2. Motor Pulley	Part No.: 3-444-064-01	Part No.: 3-444-063-01

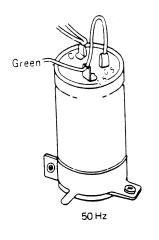


Fig. A

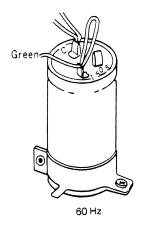


Fig. B

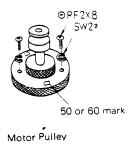
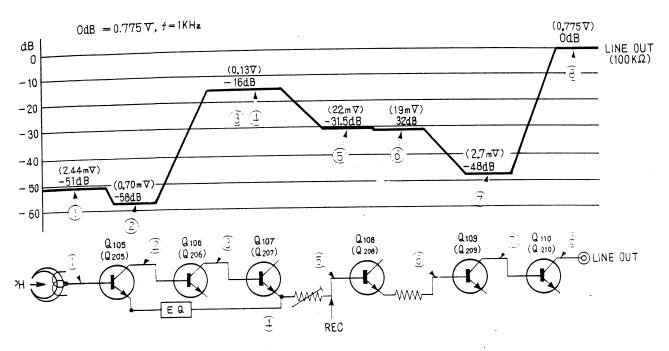


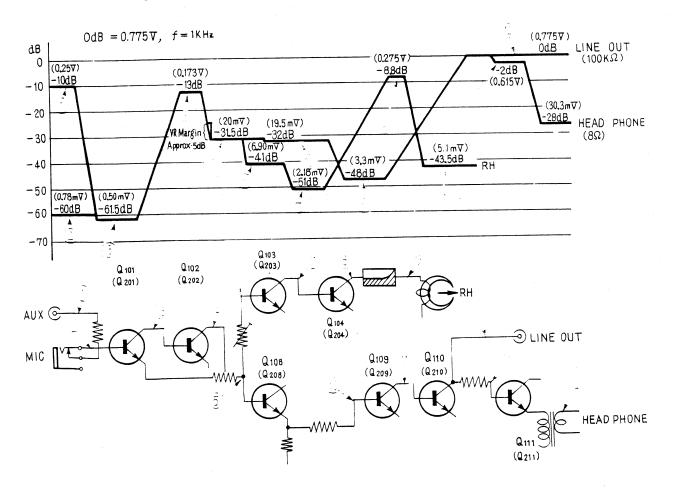
Fig. C

Level Diagram

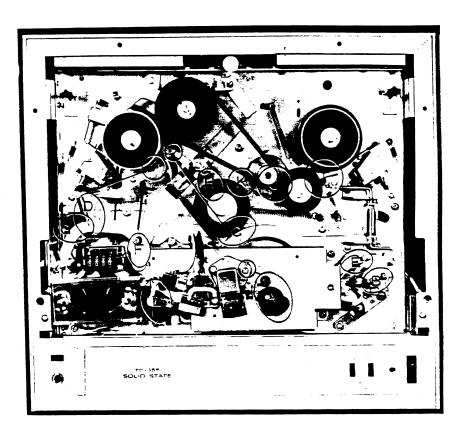
Playback

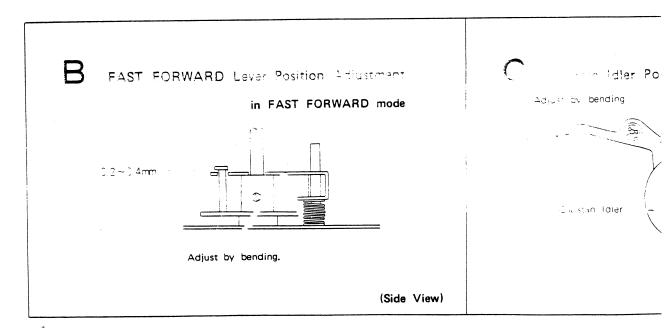


Recording

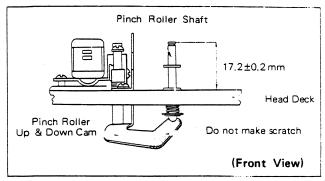


Mechanical Adjustment



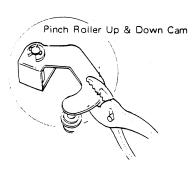


A Pinch Roller Shaft Height Adjustment

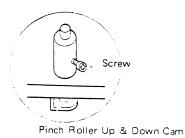


1 When adjusting roughly
Adjust by bending with pliers
as shown below.

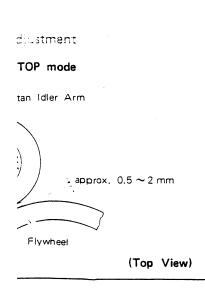
2 When adjusting accurately
Adjust to obtain 17.2±0.2 mm by loosening Screw and moving
Shaft up or down.
After fastening Screw, apply Lock Paint.

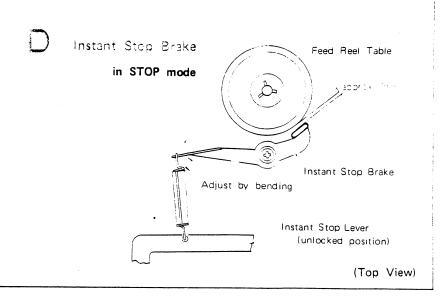


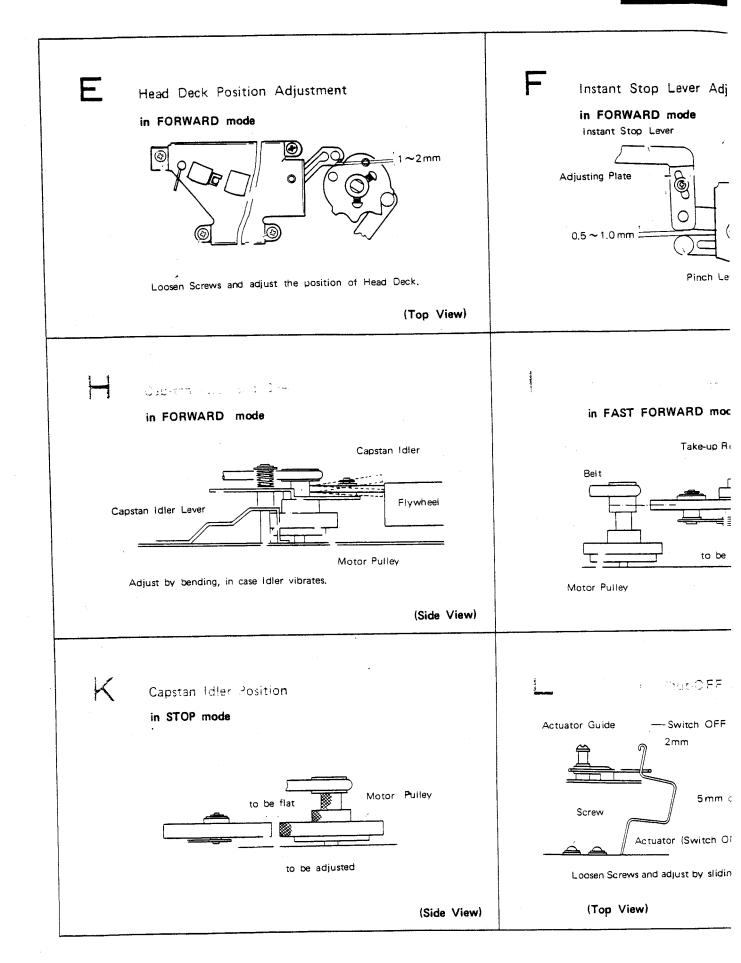
(Bottom View)



(Top View)

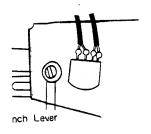






r Adjustment

Loosen Screws and adjust the position of Adjusting Plate.

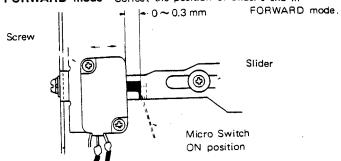


(Top View)

G

Bias ON/OFF Switch Position Adjustment

in FORWARD mode Correct the position of Slider's end in

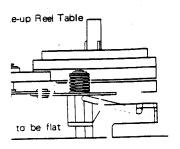


Loosen Screw shown and adjust by sliding Switch Holder.

(Top View)

diustment

) mode



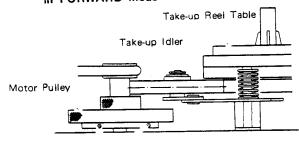
Adjust by bending.

(Side View)

J

Take-up Idler Position Adjustment

in FORWARD mode



Loosen Screws and adjust the height of Motor Pulley.

(Side View)

Adjustment کران

n OFF position

Tape Guide

5mm or more
vitch ON position)

Erase Head

Actuator Guide

by sliding Micro Switch Holder

(Side View)

NOTE

In case the following parts are soiled with oil or dust, clean them with alcohol.

- · Feed Reel Table Rim
- · Motor Pulley
- · Take-up Reel Table Rim
- · Flywheel Rim
- · Reel Spindle
- Capstan
- Take-up Idler
- · Pinch Roller
- · Capstan Idler
- · Tape Index Counter
- · Rewind Idler
- Heads

Rewind Belt

Electrical Adjustment

Item	Signal Source	Output Connection	
Voltage Regulator Adjustment		V. T. V. M. across Emitter of Transistor X ₃₀₃ and Ground	STOP
Playback Head Azimuth Alignment	10KHz, 1st Section of SONY Alignment Tape Type: N-19-F2	$V,T,V,M,$ and $100\text{K}\Omega$ Resistor in parallel to LINE OUT	PLAYBACK
Meter Level Adjustment	700Hz, 2nd Section of SONY Alignment Tape Type: N-19-F2	V. T. V. M. and $100 \text{K}\Omega$ Resistor in parallel to LINE OUT	PLAYBACK
Playback Equalizer Adjustment (1) 7½ ips (19 cm/sec)	SONY Alignment Tape Type: N-19-F2	V.T.V.M. and 100KΩ Resistor in parallel to LINE OUT	PLAYBACK
Playback Equalizer Adjustment (2) 334 ips (9.5 cm/sec)	SONY Alignment Tape Type: J-9-F2	V.T.V.M. and 100KΩ Resistor in parallel to LINE OUT	PLAYBACK
Trap Coil Adjustment		V. T. V. M. and $100 K\Omega$ Resistor in parallel to Test Point and Ground See Fig. 13	RECORD
Record Head Height Adjustment	1 KHz, -60 dBs (0.78 mV) to MIC INPUT	V.T.V.M. and $100\text{K}\Omega$ Resistor in parallel to LINE OUT	RECORD and to TAPE POSI
Record Head Azimuth Adjustment	15 KHz, -90 dBs (23//V) to MIC INPUT	V. T. V. M. and $100 K\Omega$ Resistor in parallel to LINE OUT	RECORD and to TAPE POSI
Recording Bias Adjustment	1 KHz, -60 dBs (0.78 mV) to MIC INPUT	V.T.V.M. and $100 \text{K}\Omega$ Resistor in parallel to LINE OUT	RECORD and to TAPE POS
Recording Level Adjustment	1 KHz60 dBs (0.78 mV) to MIC INPUT	V.T.V.M. and $100 \text{K}\Omega$ Resistor in parallel to LINE OUT	RECORD and to TAPE POS
Recording Equalizer Adjustment	1 KHz, -90 dBs, (23/tV) to MIC INPUT	V.T.V.M. and $100 K\Omega$ Resistor in parallel to LINE OUT	RECORD and to TAPE POS
Dummy Coil Adjustment	5 KHz90 dBs (23aV) to MIC INPUT	V. T. V. M. and 100KΩ Resistor in parallel to LINE OUT	RECORD and to TAPE POS at 17. F

NOTE:

- 1. Before adjustments, clean and demagnetize the Erase Head. Record Head and Playback Head.
- 2. The adjustments should be performed in the tape speed of 7% ips (19 cm sec), unless otherwise specified.
- 3. The Sound-on-Sound Switch (S_{301}) and Noise Suppressor Switch $(S_{103} \& S_{203})$ should be set in the OFF Position.
- 4. The following test equipment is to be provided for these adjustments.
 - (1) Audio Generator (2) Attenuator (600 ohms) (3) V.T.V.M. (4) 100KΩ Resistor (5) SONY Alignment Tape T
- 5. After adjustments, apply Lock Paint to the adjusted points.

	Adjust	Remarks
	R ₃₀₅ : 100 KΩ (8)	Adjust the Adjustable Resistor to obtain +25V ±1V on V.T.V.M.
	Azimuth Alignment Screw See Fig. 14	Adjust to obtain maximum reading on V. T. V. M.
	L-CH: R ₁₅₉ 5 KΩ (B) R-CH: R ₂₅₉ 5 KΩ (B)	 Adjust Adjustable Resistors (R₁₄₀ & R₂₄₀) to obtain 0 dBs (0.775V) on V.T.V.M. Adjust Adjustable Resistors (R₁₅₉ & R₂₅₉) so that Level Meters indicate the boundary between the red zone and the white zone.
		Deviation against level at 700 Hz of 3rd Section
	L-CH: R ₁₃₆ 4.7 KΩ (B) R-CH: R ₂₃₆ 4.7 KΩ (B)	Tape Section 4th 5th 6th 7th 10 KHz 7.5 KHz 100 Hz 50 Hz L-CH 0±2 dB 0±2 dB -4.5±2 dB -4.0±2 dB R-CH 0±2 dB -5.0±2 dB -6.5±2 dB
		After the adjustment, repeat the Meter Level Adjustment.
		Deviation against the level at 500 Hz of 3rd Section
	L·CH: R ₁₃₇ 4.7 KΩ (B) R·CH: R ₂₃₇ 4.7 KΩ (B)	Tape Section 4th 6th 7th 8th 6 KHz 3.5 KHz 100 Hz 50 Hz L-CH 0±2 dB 0±2 dB 4±2 dB L-CH 0±2 dB 2.5±2 dB 5±2 dB
The second of th	L·CH: L ₁₀₂ 1.8 mH R·CH: L ₂₀₂ 1.8 mH	Adjust to obtain minimum reading on V. T. V. M.
nitor Switch	Height Alignment Screw See Fig. 14	 Turn the Height Alignment Screw to obtain maximum reading on V.T.V.M. and also turn the Swing Alignment Screw and the Azimuth Alignment Screw to obtain maximum reading on V.T.V.M. Repeating Step 1, Adjust the Alignment Screws to obtain maximum reading on V.T.V.M.
nitor Switch	Azimuth Alignment Screw See Fig. 14	Adjust to obtain maximum reading on V.T.V.M.
nitor Switch	L-CH: C ₁₄₂ 30~200 pF R-CH: C ₂₁₂ 30~200 pF	 Turn the Trimmer Capacitor counter-clockwise fully. Turn the Trimmer Capacitor clockwise slowly. The V.T.V.M. reading will go up, reaching a maximum and then falling again. Continue to turn the Trimmer Capacitor untill the V.T.V.M. reads 0.5 dB below from the maximum value.
nitor Switch	L-CH: R ₁₁₄ 5 KΩ (B) R-CH: R ₂₁₄ 5 KΩ (B)	 Set the Monitor Switch (S₁₀₂ & S₂₀₂) to the Source Position. Feed the Signal to MIC INPUT and turn the Record Volume Controls (R₁₁₂ & R₂₁₃) clockwise so that Level Meters indicate the boundary between the red zone and the white zone. Record the signal on a blank Tape. Set the Monitor Switch (S₁₀₂ & S₂₀₂) to the Tape Position and playback the signal recorded in the Step 3. Adjust the Adjustable Resistors (R₁₁₁ & R₂₁₄) to obtain 0 dBs (0.775V) on V.T.V.M.
nitor Switch	L-CH: L ₁₀₁ 1.8.1.45 mH R-CH: L ₂₀₁ 1.8.1.45 mH	 Read Line Out Level on V.T.V.M. Feed a 20 KHz, -90 dBs (23nV) to MIC INPUT and record it. Playback a signal recorded in Step 2, and adjust the Equalizer Coil (Lint & Lint) to obtain just the same level comparing with Step 1. [V.T.V.M. indicates approx. 0 dBs (0.775V)]
nitor Switch	L-CH: L ₁₀₃ 1 mH R-CH: L ₂₀₃ 1 mH	 Record the signal with STEREO and playback it. Record the signal only LEFT (RIGHT) Channel and playback it and adjust the Dummy Coil L₁₀₃ (L₂₀₃) to obtain just the same level comparing with Step 1.

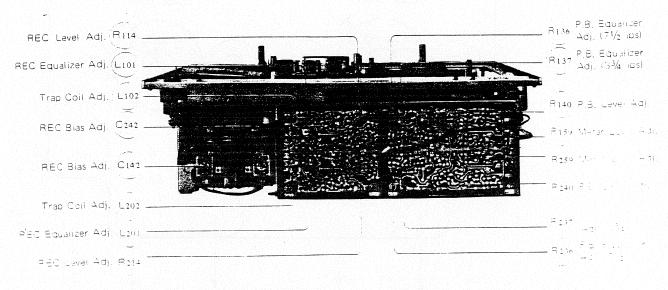
6. Bias Voltage across Head shall be read with the

following values on V. T. V. M.

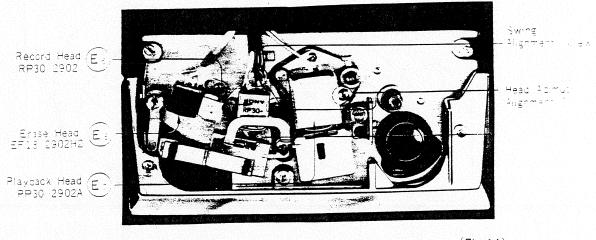
Record Head: approx. $11 \sim 21$ voits Erase Head: .approx. $155 \sim 215$ volts

F2 & J.9-F2 (6) Blank Tape

Adjusting Positions



(Fig. 13)

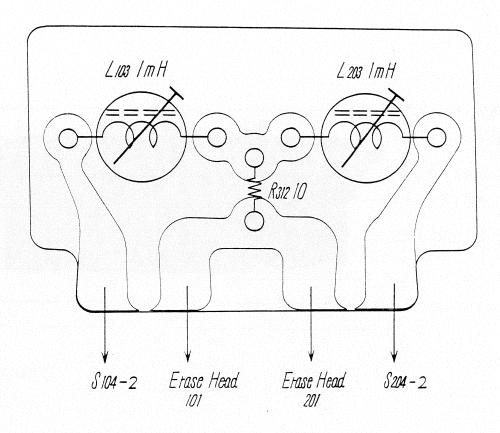


(Fig. 14)

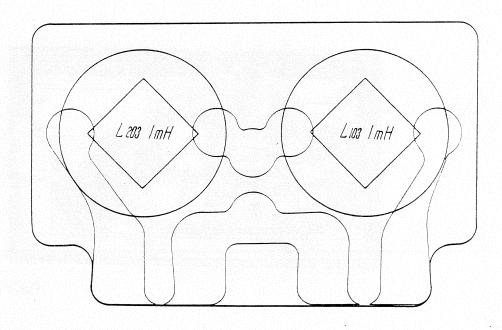
Mounting Diagram

Sub Board Section

-Conductor Side-



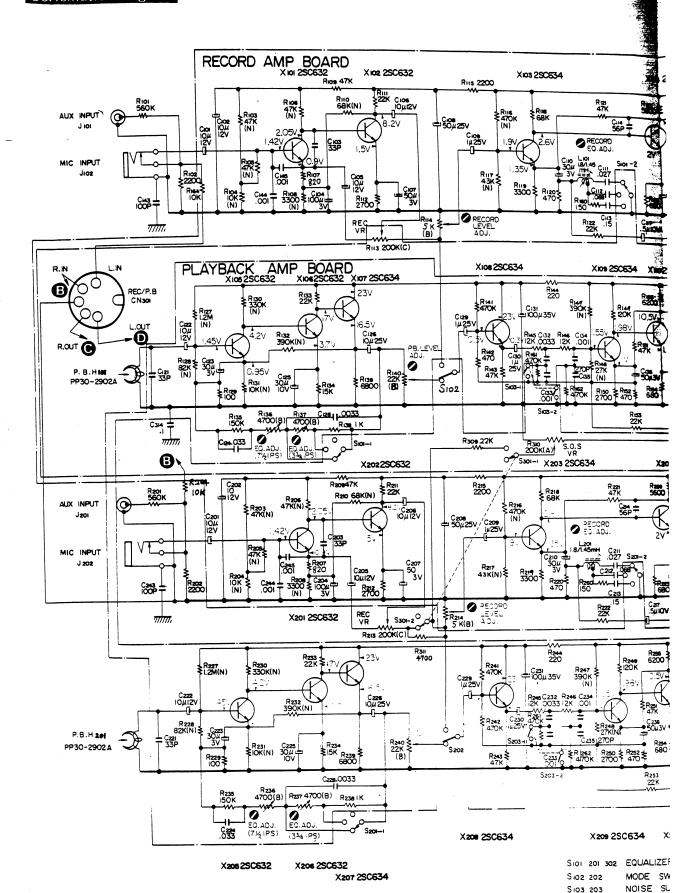
—Component Side—

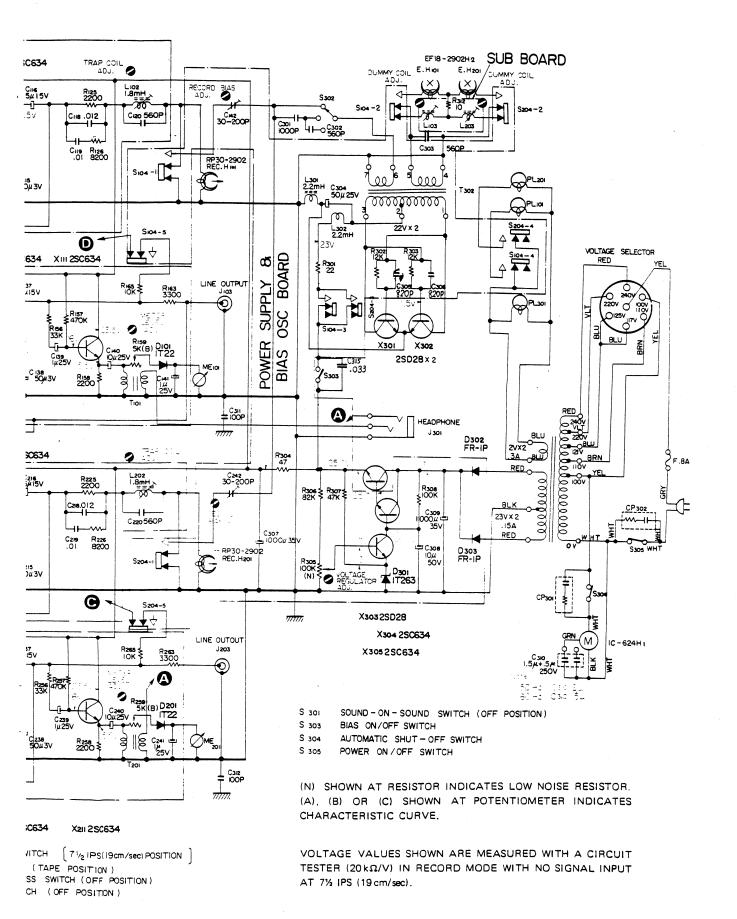


RECORD

S 104 204

Schematic Diagram

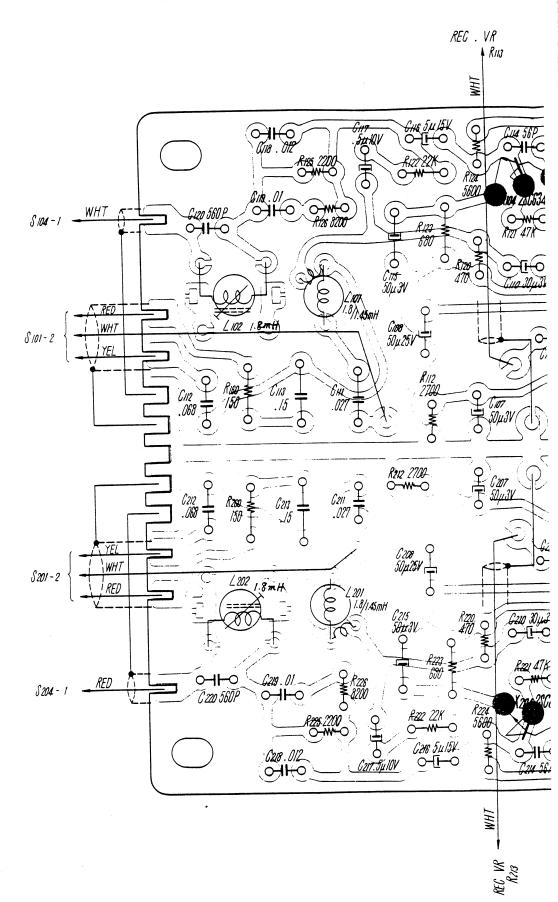


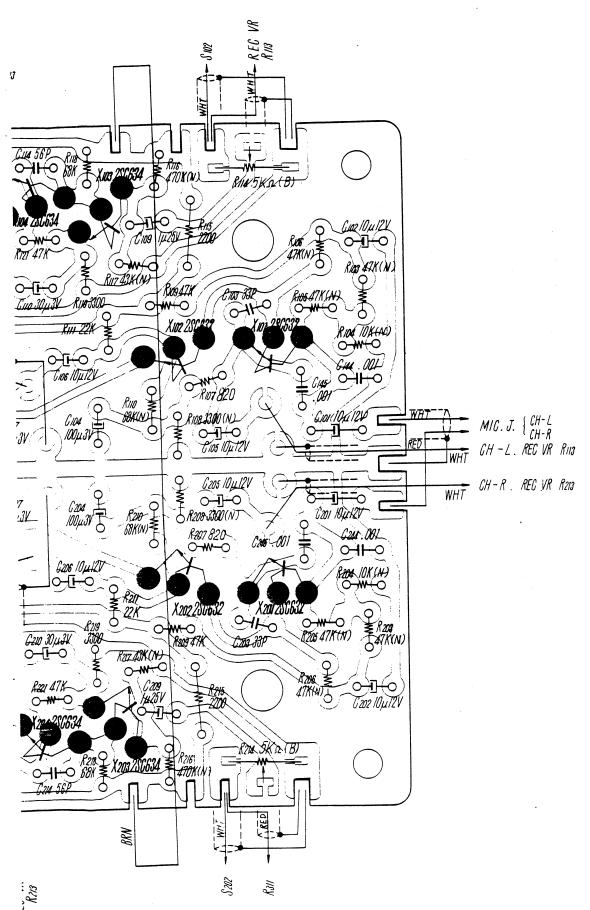


Mounting Diagram

Record Amplifier Board Section

-Conductor Side---

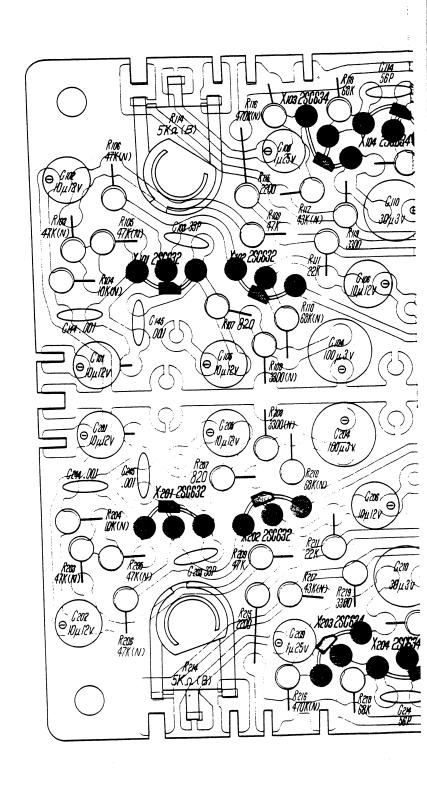


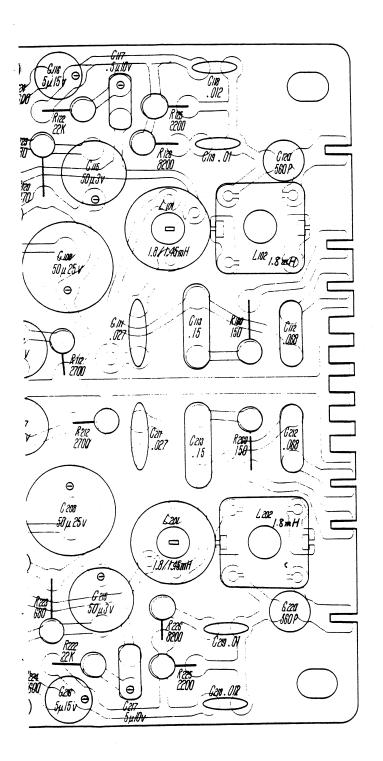


Mounting Diagram

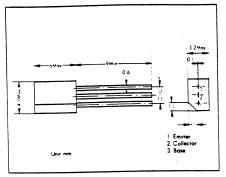
Record Amplifier Board Section

—Component Side—

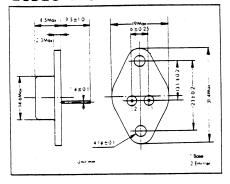




2SC63 [] Transistor



2SD28 Transistor



Mounting Diagram Playback Amplifier Board Section -Conductor Side-8101-1 \$102 **MHI** Œ 0-W-0 R138 / K 8442390K(A) ď R137 4700 (8 C131 100µ35V 0033 P Xxx28C634 M40 RISO R45 12K ZMOV) R135 150K Raze J390K(N) 9 82K(N) Q Rus ≥ 47K Crasty 25V Char Mul. Craz 10 µ12V **∑WHT** CH-L P.B.H. (Q CZZ SOLLOV R229 100 820 Q WHT CH-R P.B.H C20 1/4251 T224.033 01160 X200 286632 R233-22K 1.2M(N) 330K(N) R245 T2K X207 286634 R240 22K(B) 10u25V R247 390K (N) A238 /K_ MHT \mathcal{H} Œ

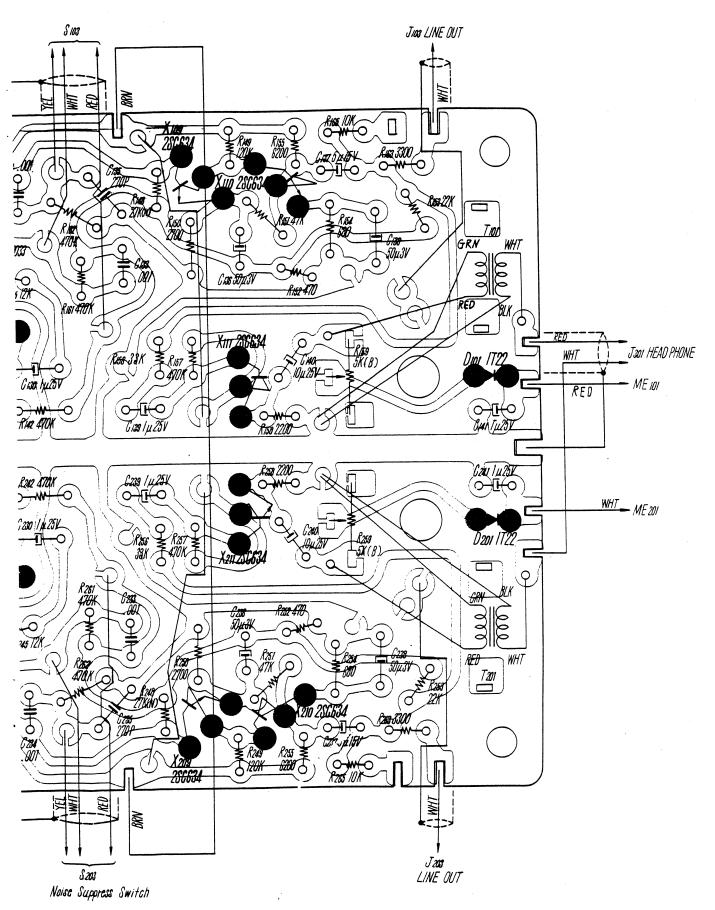
S201-1

Equalizer Switch

\$ 202

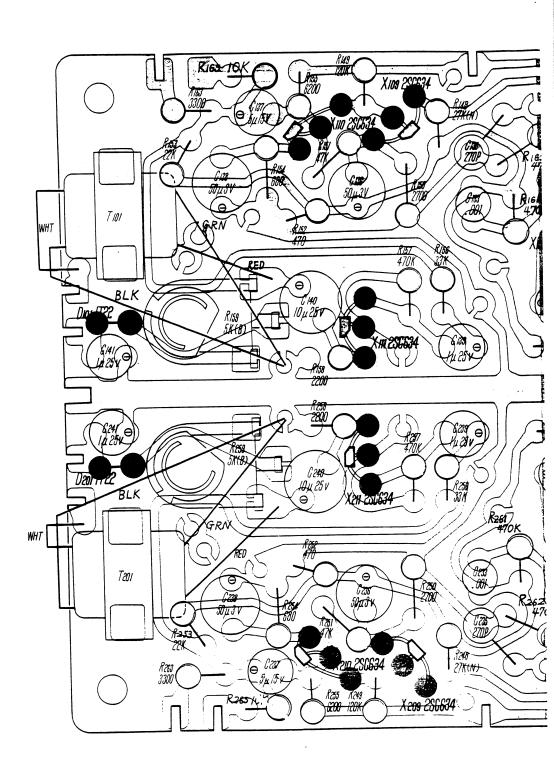
Noi

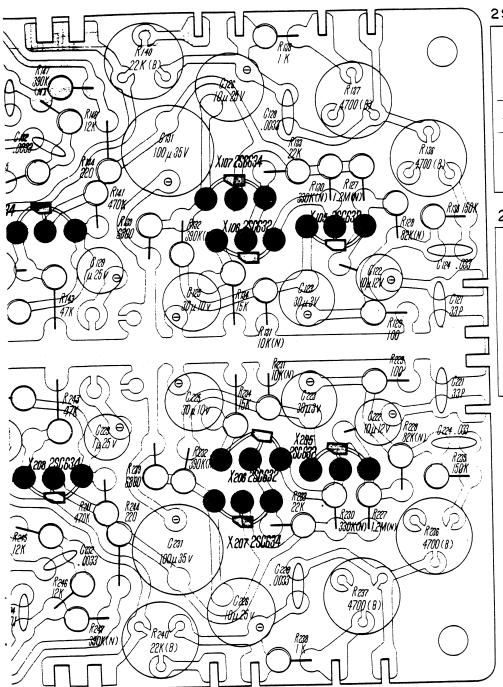
Mode Switch



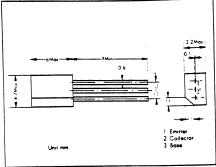
Mounting Diagram

Playback Amplifier Board Section
—Component Side—

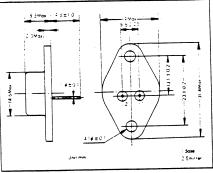


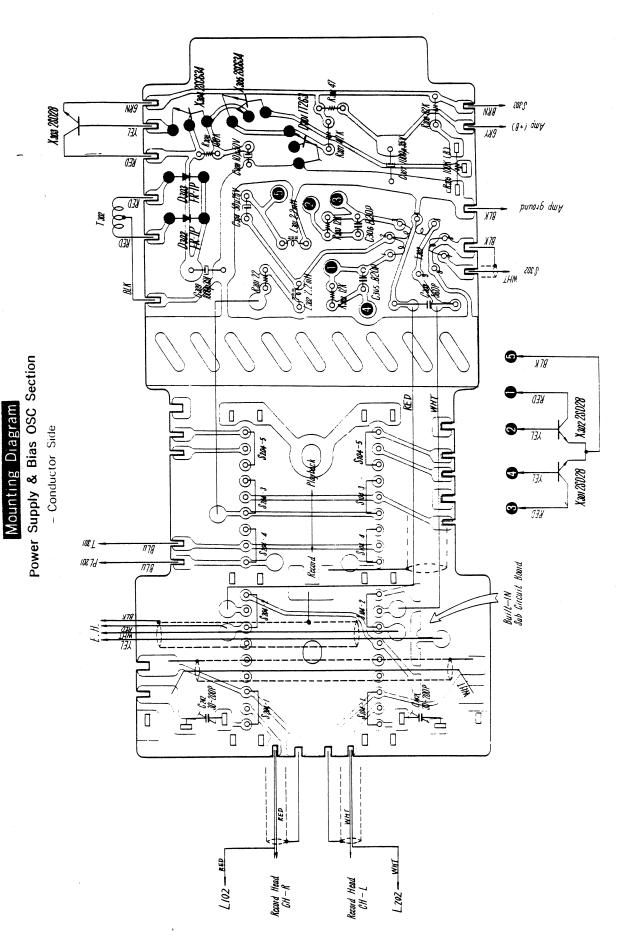


2SC63 [] Transistor



2SD28 Transistor



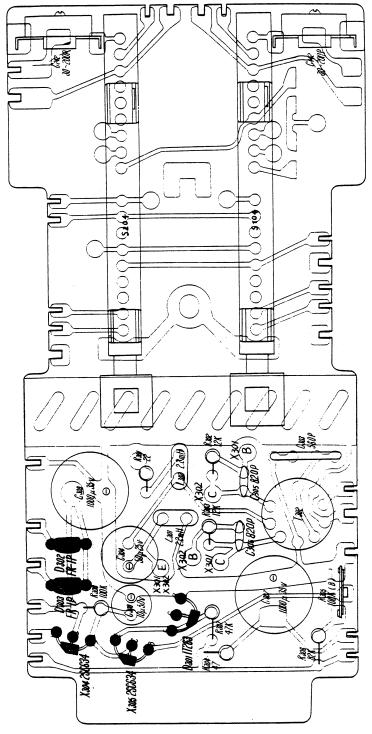


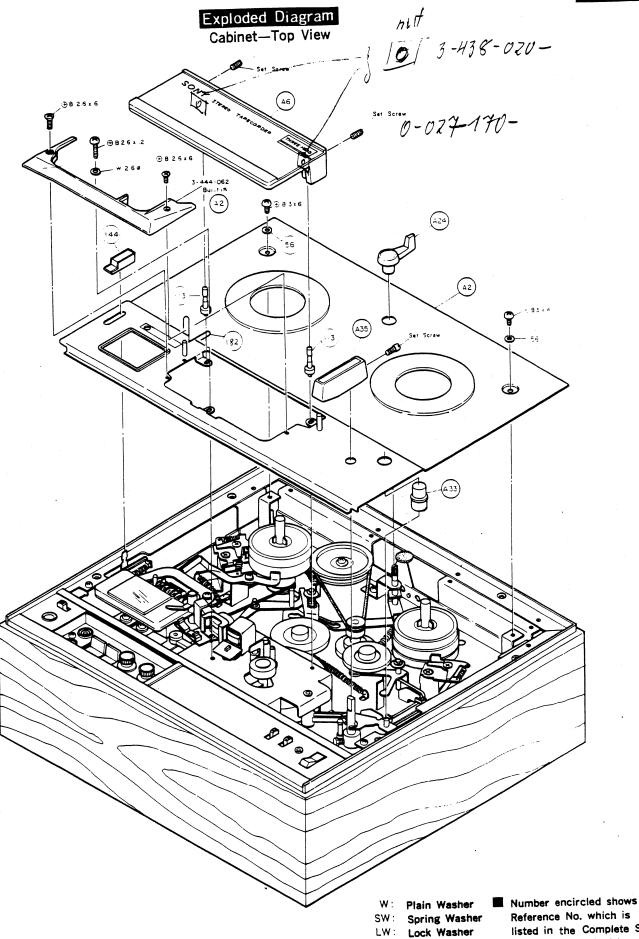
*

Mounting Diagram

Power Supply & Bias OSC Section

Component Side



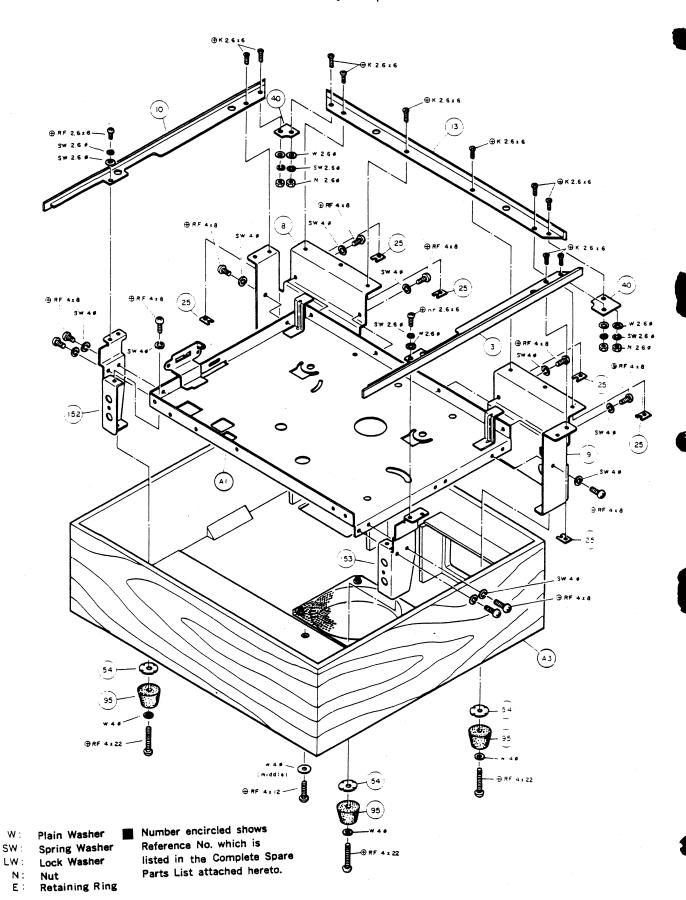


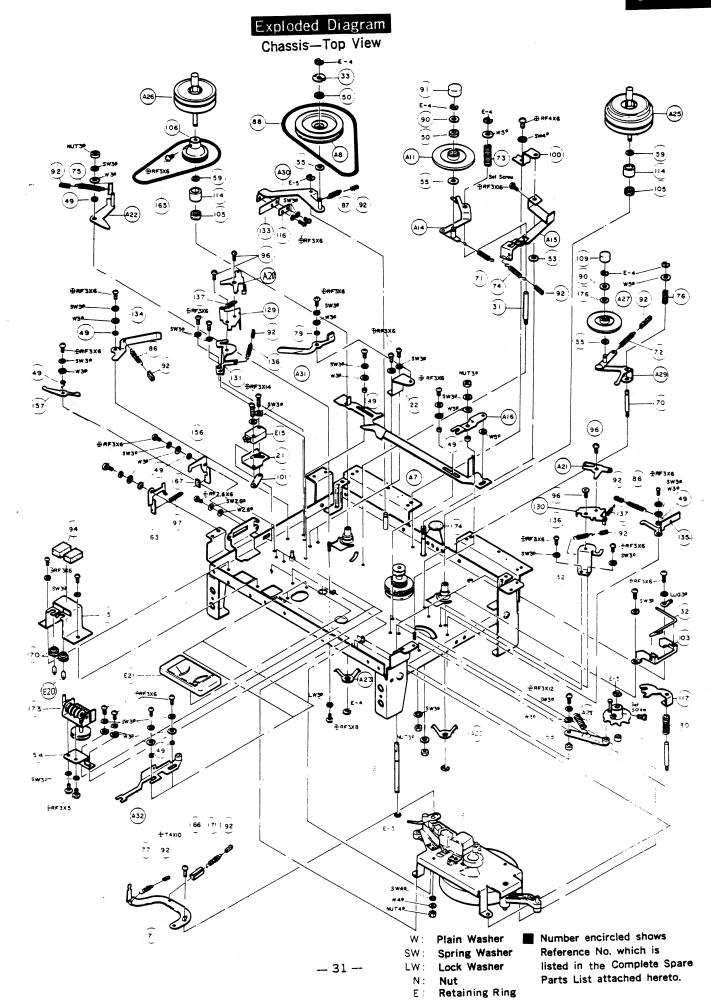
_ 29 _

N: Nut E: Retaining Ring Reference No. which is listed in the Complete Spare Parts List attached hereto.

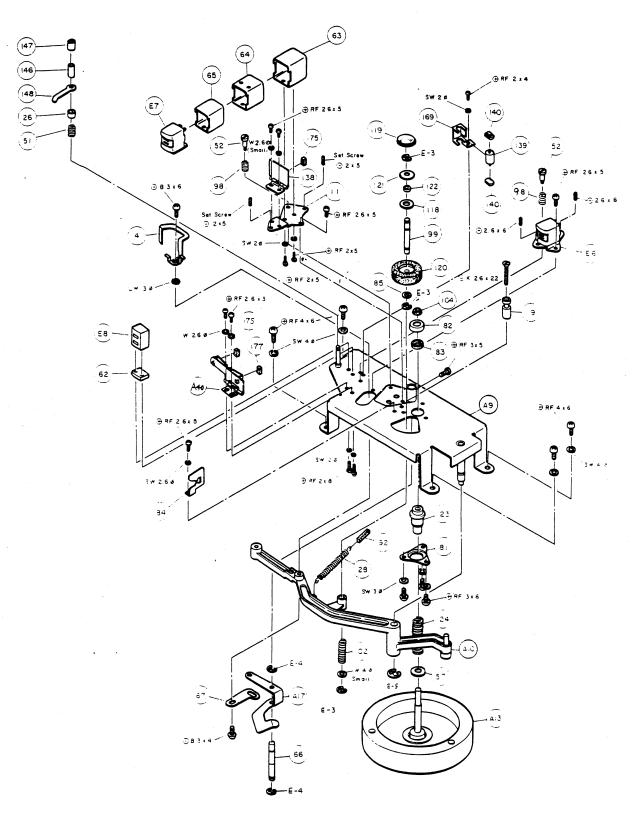
Exploded Diagram

Chassis Assembly —Top View





Exploded Diagram Head Deck—Top View

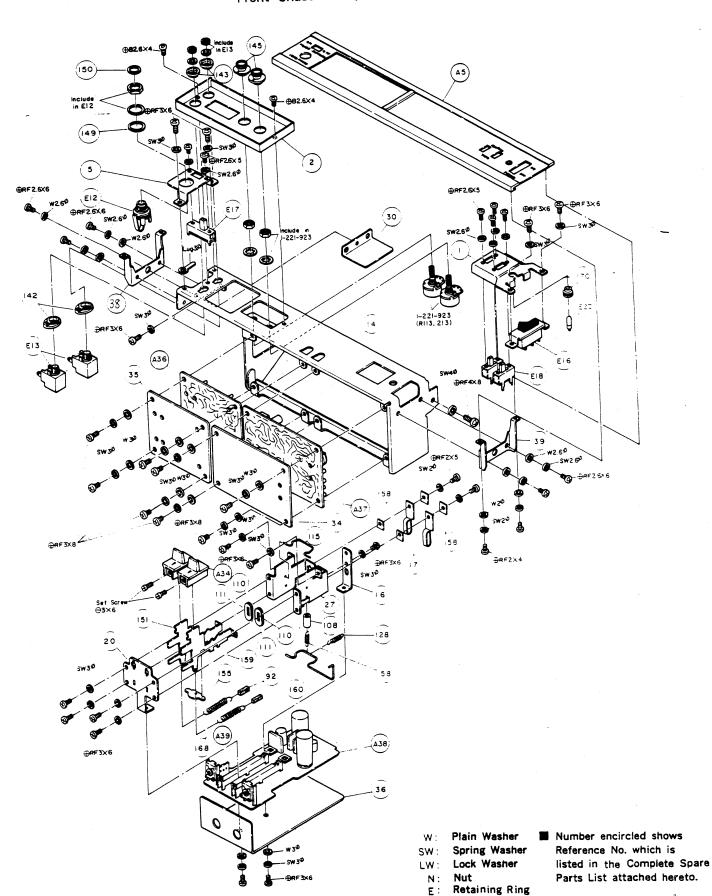


W: Plain Washer
SW: Spring Washer
LW: Lock Washer

N: Nut E: Retaining Ring

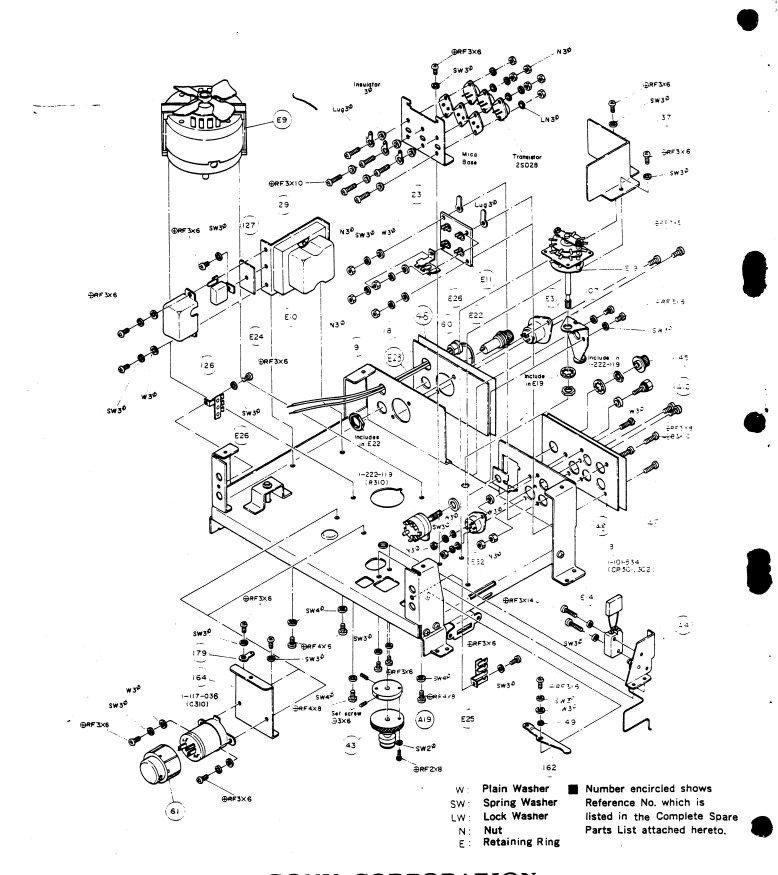
Number encircled shows
Reference No. which is
listed in the Complete Spare
Parts List attached hereto.

Exploded Diagram
Front Chassis—Top View



Exploded Diagram

Chassis - Bottom View



COMPLETE SPARE PARTS LIST FOR TC-355

· ITIAR

(for GENERAL EXPORT Model)

FEBRUARY, 1970

			Unit
Ref.	D N -	<u>Description</u>	Price
No.	Part No.	<u>Descripcion</u>	
		MECHANICAL PARTS	
A1	X-34440-01	Base Plate Ass'y	
A2	x-34440-02	Reel Panel Ass'y	
A3	x-34440-03	Complete Cabinet Ass'y	
A4	x-34440-04	Actuator Ass'y, automatic shut-off	
A5	x-34440-05	Sash Ass'y, front panel	
A6	X-34440-07	Head Cover Ass'y	
A8	X-34440-09	Idler Ass'y, rewind	
A 9	X-34440-10	Head Deck Ass'y	
A10	X-34440-11	Pinch Lever Ass'y	
A11	x-00270-03	Idler Ass'y, capstan	
A12	x-20319-01	Terminal Strips Ass'v (small type)	
A13	X-34180-04	Flywheel Ass'v canstan shalt	
A14	X-34180-06	Idler Arm Ass'v capstan	
A15	X-34180-08	Lever Ass'y, speed selector	
A16	X-34180-14	Toint Tayer Ass'v. function selector	
AIO		cam & slider	
A17	x-34180-27	Cam Ass'y, pinch roller up & down	
A18	X-34180-30	Arm Ass'v. stepper	
A19	X-34180-33	Mounting Plate Ass'y, motor pulley	
A22	X-34300-02	Lever Ass'y, capstan idler release	
A23	x - 34 300 - 03	Spring Ass'v take-up and feed reel table	
A24	x - 34 300 - 09	Vnob Agg'v speed selector	
A25	x-34300-14	Pagi Table Ass'v take-up	
A26	X-34300-15	Poel Table Ass'v feed reel	
A27	x-34300-25-8	Talom Acciv take-up	
A28	x-34300-26	Com Age'v function selector	
A29	x-34300-27	Tarram Agg'v take-un idler	,
A30	x-34360-15	Taron Agg v rewind	
A31	x-34360-17	Proke Agg'v instant Stop	
A32	X-34380-08	Took Ass'v stopper	
A33	x-34380-10	Rutton Ass'v fast forward	•
A34	X-34380-11	Rutton Ass'v. record	•
A35	X-34380-13	Knob Ass'v. function selector	•
A36	X-34440-51-1	Mounted Circuit Board, record amplifier	•.
A37	x-34440-52-1	Mounted Circuit Board, playback amplifier	-
AJ/			

lef.			Unit Price
<u>10</u> .	Part No.	Description	
. 70	-x-34440-53-1	Mounted Circuit Board, power supply	
138 440	x-34440-12	topo pou hinge & bias OSC.	
A39	X-34440-54-1	Mounted Circuit Board, dummy coil	
3.37	x-34420-06	m -: C-ming Agg'y take-UD	
	X-34510-35	n. 1 - (A) Agg v food	
	x-34510-37	n 1 A	
1	3-444-017	n law account suitch	
2	3-444-018	Omnomental Plate jack	
3	3-444-019	a 1 /A \	
4	3-444-020	Shifter, head pad	
5	3-444-021	n. 1 - Linguage 100V	
6	3-444-022	Taran ingtont grop annerger	
7	3-444-023		
8	3-444-025	Bracket, jack (A)	
9	3-444-026	Bracket, jack (B)	
10	3-444-027	Sach R	
10	3-444-029	spring, hruge	
13	3-444-030	Sash C	
15	3-444-032	Bracket, VU meter holder	•
16	3-444-033	Bracket, record switch	
17	3-444-034	Spring, record switch holder	_
18	3 - 444 - 035	Organization lack A	=
20	3-444-038	Supporter, record lever	
21	3-444 - 039	Holder, microphone switch	_
22	3 - 444 - 040	Retainer, instant stop brake lever	_
23	3-444-041	Bracket, power print	_
24	3 -444 -042	Cover, switch	_
25	3 -444 -043	Nut, sash retainer	_
26	3 -444 -044	Tape Guide (lower part)	_
27	3-444-045	Support, record change-over	_
28	3-444-046	Helical Spring	_
29	3-444-047	Holder, transformer	_
30	3-444-048	Shield Plate	_
31	3-444-049	Shaft, fast forward idler	_
32	3-444-050	Clank	_
33	3-444-051	Washer, rewind idler	_
34	3-444-052	Shield Paper A	_
35	3-444-053	Shield Paper BShield Paper C	_
36	3-444-054	Shield Plate B	-
37	3-444-055	Shield Plate B	-
38	3-444 - 057	Holder, sash A	_
39	3-444-058	Holder, sash B	
40	3-444-059	Retainer, sash	
	3-444-065	Hinge, rec./exasolieud	

Ref.	Part No.	<u>Description</u>
41	3-444-060	Tension Spring
42	3-444-061	Insulator, terminal strips
43	3-444-063-01 - 13	
, 0	(3-444-064-01 - 13	Motor rulley 30 Hz
44	X-34440-12	Hinge Ass'y, head pad
45	3-444-071	Cover jack plate A
46	3-444-072	Cover, jack plate B
47	3-444-60 2	Name Plate,
48	3-444-601	Ornamental Plate A, jack
49	0-027-134	Shaft, stepper
50	0-027-216	Oil Ring (B), 5 6
51	3-103-238	Spring, tape guide adjustable
52	3-401-068	Screw, head adjusting
53	3-402-764	Spacer
54	3-403-724	Stopper, rubber foot
55	3-405-407	Washer, drive wheel; thrust
56	3-409-108	Washer, reel panelLock Spring
58	3-409-158	Washer, idler; thrust
59	3-409-163	Stopper, cord; small
60	3-410-032	Cap, capacitor
61	3-410-044	Washer, erase head
62	3-412-080	Case, shield A
63	3-412-119	Case, shield B
64	3-412-120	Case, shield C
65	3-412-121	Shaft, pinch roller up & down adjustable
66	3-418-009	Joint, pinch lever & shifter
67	3-418-011	Spacer, stepper arm
68	3-418-054	Shaft, lock lever
69	3-418-055	Shaft, idler arm; speed selector lever
70	3-418-060	guide shifter
- 1	3-418-069	Spring, idler arm
71	3-418-079	Spring, idler arm (horizontal use)
72 73	3-418-073	Spring idler arm shaft (vertical use)
73 74	3-418-074	Spring lever (horizontal use)
74 75	3-418-075	Spring, idler release lever
75 76	3-418-077	Spring, idler arm shatt (vertical use)
76 77	3-418-079	Spring, lever
7 <i>7</i> 78	3-418-085	Spacer, function selector cam shall
78 79	3-418-086	Spacer brake lever
80	3-418-091	Spring lock lever shaft
81	3-418-107	Support canstan hearing
82	3-418-111	Cap, capstan bearing
04	<u> </u>	• • •

Ref.			Unit
<u>No</u> .	Part No.	Description	Prica
-			
83	3-418-112	Oil Ring, capstan bearing	
84	3-418-113	Tape Support, right	
85	3-418-115	Nylon Washer, 8 ϕ (outer diameter)	
		pinch roller	
86	3-418-200	Spring, brake A	
87	3-418-201	Spring, brake B	
88	3-418-208	Belt, rewind idler	
89	3-419-070	Sticker, on cabinet bottom	
90	3-419-098-21	Washer; nylon	
91	3-419-211	Cap, rewind idler	
92	3-420-076	Rubber Foam Cushion (noise absorber)	
94	3-423-130	Rubber Foam Cushion	
95	3-424-049-05	Rubber Foot	
96	3-425-185	Shaft	
97	3-426-502	Helical Spring	
98	3-428-132	Helical Spring	
99	3-430-113	Shaft, pinch roller	
100	3-430-154	Bracket, speed selector shaft	
101	3-430-155	Plate, automatic shut-off actuator switch	
102	3-430-156	Spring, pinch lever cam	
103	3-430-157	Bracket, recording clank	
104	3-430-159-02	Washer, capstan shaft; black	
105	3-430-160	Washer, take-up and feed reel spindle	
106	3-430-161	Pulley, tape counter	
107	3-430-162	Bracket, speed equalizer switch	
108	3-430-170	Spacer, lock lever	
110	3-430-199	Washer, recording button; black	
111	3-430-200	Washer, recording button; black	
112	3-430-201	Shaft, function selector	
113	3-430-203-02	Shaft, head cover	
114	3-430-206	Cap, take-up and supply reel spindle	
115	3-430-212	Rod, record locking	
116	3-430-223	Lever, joint supply and take-up reel	
		brake arm	
117	3-430-227	Cam, fast forward; lever	
118	3-430-231	Oil Ring, pinch roller	
119	3-430-232	Cap, pinch roller	
120	3-430-233	Roller, pinch	
121	3-430-234-01	Washer, pinch roller; mylar	
122	3-430-235	Spacer, pinch roller; metal	
123	3-430-237	Retainer, capstan shaft	
126	3-431-203	Cap, terminal	
127	3-431-204	Insulator, terminal; fiber	

Unit <u>Price</u>

Ref. <u>No</u> .	Part No.	<u>Description</u>
128	3-432-152	Helical Spring
129	3-436-067	Proko 92
130	3-436-068	Proka T2
131	3-436-069-02	Proba C2
132	3-436-070-03	Proko T3
134	3-436-072-04	Toint Layer feed reel
135	3-436-073	Toint Layer take-up
136	3-436-075	Holical Spring
137	3-436-076	uolical Spring
138	3-436-122	I Dlata hard shield
139	3-437-170	Dollow joint
140	3-437-171-04	Detainer roller shaft
142	3-437-228	Inculator (A) miniature lack
143	3-437-229-01	Inculator (R) miniature lack
144	3-437-271	Vech ingtant stop
145	3-437-275	Vnob volume control (S)
146	3-437-306	Tana Cuida (B)
147	3-437-307	Tana Cuide (C)
148	3-437-309	Potainor tane quide (A)
149	3-437-423	Washer insulator
150	3-437-436	Inculating Washer, binaural jack
151	3-438-028	Town record (A)
152	3-438-030	Iog plate (left)
153	3-438-031	Leg, plate (right)
154	3-438-033	Bracket, tape index counter
155	3-438-037	Procket leaf SWIFCh
156	3-438-038	Bracket, instant stop shifter (A)
157	3-438-039	Procket instrat Stop Shiller (D)
158	3-438-040	Retainer, plate spring
159	3-438-041	Lever, record (B)
160	3-438-044	Lock Lever, clank
161	3-438-046	Pull Rod, lock plate
162	3-438-047	Bracket, instant stop lock
163	3-438-048	Bracket, instant stop shifter (C)
164	3-438-050	Holder, capacitor
165	3-438-053	Collar, instant stop
166	3-438-054	Cushion, shifter plate
167	3-438-077	Helical Spring
168	3-438-080	Proclet roller holder
169	3-438-058	Retainer, pilot lamp
170	3-442-022	Helical Spring
171	3-442-030	Self Label
172	3-701-030	Sell Paper

			Unit
	Part No.	Description	<u>Price</u>
	12-2 (181	12. (1)	
	Y-20410-11-3	Today Counter XI TVDE	
	0-041-041	Washer reel name!: White	
	0-041-129	nod erage playback and record nead	
!	0-051-235		
	3-401-179	Lug, wire retainer	
	3-401-482		
	2-825-006	Mica Spacer, MD-17	
	2-832-002	Bushing, insulating; F-1	
	3-005-001	Spring, record head adjusting	
	3-407-076	Retainer, washer	
	3-418-191	Screw, head adjusting	
	3-419-098		
	3-444-073	Guide, actuator	
	3-444-074	Bracket (A), cabinet	
	3-444-075	Bracket (B), cabinet	
	3-444-077	Insulating Plate, p.b. head	
	3-444-078	Holding Plate, leaf switch	
	3-444-084	Spring, rewind	
	3-444-085	Chassis, front panel	
	3 -444 -523	Protecting Sheet, dust cover	
	3-444-524	Insulating Plate, binaural jack	
	3-444-603	n 1 //1	
	3-444-604	makin hood mounting	
	3-451-138	m	
	3-451-139	0111.m	•
	3-451-159 3-460-075	Weehor nulon	_
	3-790-255-14	The truction Manual	-
	3-793-010	D1-1-h rea rolly	-
	3-793-072-11	Cond voltage indicating	•
	3-103-191	Dolugthulana Rag accessories	_
	3-701-020	n	_
	3-444-605	Cover (C), jack plate	-
	3-430-229-03	Reel Cap, C	.
	8-860-107	Doc1 D-7A	-
	1-534-049-31	Connection Cord RK-74	_
	3-444-066	Dust Protector, DP-355	_
	3-444-067-04	Carton	-
	3-444-068-03	Cushion, side	-
	3-444-069-01	Cushion, upper	

No.

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Description
Part No.
           Polyethylene Bag, dust protector -----
3-444-070
           Polyethylene Bag, set ------
3-442-027
           Pad Ass'y, non-skid -----
X-37010-20-2
           Tack Label, 60 Hz -----
3-701-062
           Caution Label, head -----
3-793-124
           Cleaner Ass'y, head -----
X-37010-18-2
           Tack Label. 50 Hz -----
3-701-061
                        -----
           Bag, accessory -
3-701-064
           Screw (+) P 2 x 4 -----
7-621-255-25
                (+) P 2 x 5 -----
7-621-255-35
                (+) P 2 x 8 -----
             11
7-621-255-55
             11
                (+) P 2 x 6 -----
7-621-255-45
                (+) P 2.6 x 3 -----
             **
7-621-259-12
                (+) P 2.6 x 4 -----
             11
7-621-259-22
             11
                  P 2.6 x 5 -----
7-621-259-32
                (+)
             11
                  P 2.6 x 5 -----
7-621-259-35
                (+)
                (+) P 2.6 x 6 -----
             11
7-621-259-45
                (+) P 3 x 5 -----
             11
7-621-261-32
             11
                (+) P 3 x 5 -----
7-621-261-35
                (+) P 3 x 6 -----
             11
7-621-261-45
                (+) P 3 x 10 -----
             11
7-621-261-65
                (+) P 3 x 10 -----
             11
7-621-261-62
                (+) P 3 x 14 -----
             11
7-621-261-85
                (+) P 3 x 16 -----
             11
7-621-262-05
                (+) P 4 x 6 -----
             11
7-621-268-45
             18
                (+) P 4 x 8 -----
7-621-268-55
             11
                (+) P 4 x 12 -----
7-621-268-75
                (+) P 4 x 22 -----
             11
7-621-269-35
                  P 3 x 6 (w/ spring washer) -----
             11
7-628-251-25
                (+)
                  P 3 x 8 (w/ spring washer) -----
7-628-251-35
                (+)
             11
                (+) K 2.6 x 6 -----
7-621-559-42
                (+) K 2.6 x 8 -----
             11
7-621-559-55
                (-) K 2.6 x 22 -----
             11
7-621-510-32
             11
                (+) B 3 x 6 -----
7-621-770-24
             11
                (+) B 2.6 x 4 -----
7-621-770-36
                (+) B 2.6 x 12 -----
             11
7-621-770-52
                (+) B 3 x 6 -----
             11
7-621-770-22
             ,,
                (+) B 3 x 6 -----
7-621-770-49
                (+) B 3 x 10 -----
             11
7-621-770-40
                (+) T 4 x 10 -----
             11
7-621-468-65
                (-) SC 2 x 3 -----
7-621-710-25
7-621-710-56
                (-) SC 2 x 6 -----
```

No.

No.

Re <u>No</u>		Part No.	Description	-		Unit <u>Price</u>
			ELECTRICAL	PARTS		
			Transistor,	2SC632	Q101,201,102,202,	
			***	2SC634	205,206,105,106 Q207,107,108,109, 103,104,208,209, 210,211,110,111, 203,204,304,305	
			11	2SD28	Q301,302,303	
			Diode,	1T22	D101,201	
			n n	1T243M	D301	
			11	FR-1P	D302,303	
E1		1-427-217	Output Tran	sformer	T101,201	
E2		1-407-198	Micro Induc		L301,302	
E3		1-407-284	Coil, dummy		L103,203	
E4		1-433-122		Transformer	T302	
E 5		1-513-231-16	Switch, sli		\$104,204	
E6		8-824-129-20	Record Head			
E7		8-821-229-01	Playback He	ad PP3Q-2902A		
E8		8-826-629-23	Erase Head	EF18-2920H2 -		
E9)	8-832-624-09	Motor IC-62	4H1		
E1	10	1-441-586	Power Trans	former	T301	
E1	11	1-507-163	4 P Jack		J201,203,101,103	
E 1	12	1-507-187	Jack, binau	ral USA Type		
E 1	13	1-507-188	Jack, micro	phone	J102,202	
E 1		1-514-039-02	Micro Switc		S304	
E 1		1-514-057	Micro Switc		S303	
E 1		1-514-306	Switch, see		\$305	
	17	1-514-324	Switch, sli		\$103,203	
E		1-514-415-21	Slide Switc		\$102,202	
	19	1-514-416	Switch, rot	ary	\$101,201,302	
	20	1-518-093	Pilot Lamp		PL301,101,201	
E2		1-524-051-21 1-533-048-21	Level Meter		ME101,201 ,	
	22 2 3	1-534-487				
	24	1-536-146			lL1	
	25	1-536-147			1L2	
	26	1-536-149			2L	
	27	1-538-785-11			ecord amp	
	28	1-538-784-12			layback amp	
	29	1-538-783-11		cuit Board, p	oower supply &	
F.	31	1-509-029-02	Connector		ias osc	
	32	1-509-064	Socket. vol	tage selector		
	-	1-532-163	Fuse, 0.8 A			

9/14 (TC-355 GENERAL EXPORT Model) (C3-11)

Ref. <u>No</u> .	Part No.	Description_	Unit <u>Price</u>
E30	1-538-782-11 1-231-069 1-409-141 1-514-055 1-117-036	Printed Circuit Board, sub Coil, equalizer L101,201 Coil, trap L102,202 Switch, leaf S105,205 MP Capacitor 1.5μF+0.5μF C310	
		Capacitor, mylar	
	1-106-058-12 1-105-661-12 1-106-082-12 1-105-673-12 1-106-084-12 1-105-674-12 1-105-678-12 1-105-683-12 1-105-683-12 1-106-110-12 1-105-687-12 1-105-661-12 1-105-661-12 1-105-667-12 1-105-679-12 1-105-679-12 1-105-845-12	0.001 μF 50 WV ±10 %	
	1-105-759-12	0.033 µF 200 WV ±10 % C315Capacitor, silvered mica	
	1-107-054 1-107-056 1-107-221 1-107-004 1-107-035	33 pF 500 WV ±10 % C103,203 56 pF " " C114,214 560 pF 1500 WV " C303 100 pF 500 WV " C311,312,143,243 560 pF " " C302	

10/14 (TC-355 GFNERAL EXPORT Model) (C3-11)

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Unit
                                                                  Price
                 Description
Part No.
                 Capacitor, electrolytic
                                           C109,209 -----
1-121-343
                 l μF
                          50 WV
                 4.7 µF
                                           C116,216 -----
1-121-463
                          16 WV
                                           C205,206,106,201,
                 10 µF
1-121-471
                                            202,101,102,105 ---
                                           C110,210 -----
                 33 µF
1-121-481
                          3.15 WV
                            11
                                           C207,215,107,115 ---
                 47 µF
1-121-486
                 47 μF
                                               C304 -----
                          25 WV
                                  +150 -10 %
1-121-289
                                           C104,204 -----
                          3 WV
1-121-290
                 100 µF
                                  +200 -10 % C229,239,141,
                          50 WV
1-121-442
                 l μF
                                            241,230,129,130,
                                            139 -----
                                               C137,237 -----
                                  +150 -10 %
1-121-463
                 4.7 µF
                          16 WV
                           . 11
                                                C122,222 -----
                 10 µF
1-121-471
                                      11
                                                C126,226,140,
                          25 WV
1-121-472
                  10 µF
                                                 240 -----
                                           C123,223 -----
                  33 µF
                          3.15 WV
1-121-481
                                           C125,225 -----
                  33 µF
                          16 WV
1-121-485
                                           C236,238,136,138 ---
                                      11
                 47 µF
1-121-486
                          3.15 WV
                                      11
                                           C131,231 -----
                  100 µF
                          35 WV
1-121-357
                                           C308 -----
                  10 µF
                          50 WV
1-121-474
                 47 µF
                                           C108,208 -----
                          25 WV
1-121-289
                                  +150 -10 % C307,309 -----
                           35 WV
1-121-388
                  1000 µF
                                    +20 % C117,217 -----
                  0.5 \mu F
                           10 WV
1-127-022
                  Resistor, carbon
                                RD1/4UR, ELR1/4
                                                   R160,260 ----
                         +10 %
                  150 Ω
1 - 242 - 653
                          ±5 %
                                                   R120,220 ----
1-242-665
                  470 Ω
                                         11
                                                   R123,223 ----
1-242-669
                  680 Ω
1-242-681-11
                          <u>+</u>10 %
                                                   R125,225 ----
                  2.2 k\Omega
1-242-681-12
 1-242-681-31
                            11
                                         11
                                                   R115,215 ----
                  2.2 k\Omega
 1-242-681-32
                            11
                                                   R112,212 ----
                  2.7 k%
 1-242-683
                           <u>+</u>5 %
                                     RD1/4UR
                                                   R108,208 ----
 1-242-685-09
                  3.3 k\Omega
 1-242-685-11
                            11
                                                   R119,219 ----
                                RD1/4UR, ELR1/4
                  3.3 k\Omega
 1-242-685-12)
                            +1
                                         11
                                                   R124,224 ----
                  5.6 k\Omega
 1-242-691
                            11
                                         11
                                                   R126,226 ----
                  8.2 k\Omega
 1-242-695
```

No.

11/14 (TC-355 GENERAL EXPORT Model)
(C3-11)

RD1/4UR

R104,204 ----

11

 $10 k\Omega$

1-242-697

Part No.	Descript	ion	, .		Unit <u>Price</u>
1-242-705-11 1-242-705-12)	22 kΩ	<u>+</u> 5 %	RD1/4UR, ELR1/4	R122,222	
1-242-705-31 1-242-705-32)	22 kΩ	<u>+</u> 10 %	"	R111,211	
1-242-712	$43 k\Omega$	<u>+</u> 5 %	RD1/4UR	R117,217	
1-242-713-09	47 kΩ	11	11	R205,206,203, 106,103,105-	
1-242-713-11 1-242-713-12)	47 kΩ	11	RD1/4UR, ELR1/4	R109,209,121, 221	
1-242-717-09	68 kΩ	11	RD1/4UR	R110,210	
1-242-717-11	68 kΩ	!1	RD1/4UR, $ELR1/4$		
1-242-737	470 kΩ	11	RD1/4UR	R116,216	
1-242-649	100 Ω	11	RD1/4UR, ELR1/4	R129,229	
1 -2 42 - 6 5,7	220 Ω	11	"	R144,244	
1-242-665	470 Ω	u 	11 11	R152,252	
1-242-669	680 Ω	11	. 11	R154,254 R138,238	
1-242-673	$1 k\Omega$	11	11	R158,258	
1-242-681	$2.2 \text{ k}\Omega$	11	11	R150,250	
1-242-683	2.7 kΩ 3.3 kΩ	11	11	R163,263	
1-242-685	$6.2 \text{ k}\Omega$	11		R155,255	
1 -242 -692 1 -242 -693	$6.8 \text{ k}\Omega$	+10 %	11	R139,239	
1-242-697-09	10 kΩ	+5 %	11	R131,231	
1-242-699	12 kΩ	-11	. 11	R245,246,145,	
1-242 000	12			146	
1-242-701	15 $k\Omega$	<u>+</u> 10 %	H · · ·	R134,234	
1-242-705-32 1-242-705-31	22 kΩ	11	Ħ	R133,233	
1-242-705-11 1-242-705-12)	22 kΩ	11	!!	R153,253	
1-242-707	$27 k\Omega$	11	RD1/4UR	R148,248	
1-242-709	33 kΩ	11	RD1/4UR, ELR1/4	R156,256	
1-242-713	47 kΩ	11	"	R243,251,143, 151	•
1-242-719	82 kΩ	11	RD1/4UR	R128,228	
1-242-671	820 Ω	11	11	R107,207	
1-242-723	120 kΩ	11	RD1/4UR, $ELR1/4$	R149,249	
1-242-725	150 kΩ	11	"	R135,235	
1-242-733	330 kΩ	11	11	R130,230	
1-242-735	390 kΩ	11	RD1/4UR	R132,232,147, 247	
1-242-737	470 kΩ	II e	RD1/4UR, ELR1/4	R141,142,L57, 262,242,257, 261,161,162, 241	,
1-242-697-31	10 kΩ	13	11	R165,265	
		12/14 ((C3-	TC-355 GENERAL EX	PORT Model)	

		Unit
Part No.	Description	Price
1-242-747	1.2 MΩ ±5 % RD1/4UR R127,227	
1-242-625	10 Ω " RD1/4UR, ELR1/4 R312	
1-242-641	47 Ω " R304	
1-242-699	12 kΩ " R302,303	
1-242-713	47 kΩ " R307	
1-242-719	82 kΩ " R306	
1-242-721	100 kΩ " R308	
1-244-681	2.2 kΩ " RD1/4SR R102,202	
1-244-689	4.7 kΩ ±10 % R311	
1-244-705	22 kΩ ±5 % " R309	
1-244-739	300 kii	
1-244-843	56 Ω " R301	
1-244-673	$1 k\Omega$ " RD1/4SR R166,266	
1-244-697	10 kΩ " R164,254	
	Capacitor, polyethylene	
	oupdoing polyculy tone	
1-129-659	270 pF 50 WV ±10 % C135,235	
1-129-665	820 pF " C305,306	
1-129-663	560 pF " " C120,220	
	Encapsulsted Component	
1-101-534-12	0.1 μF+120 Ω CP301,302	
1-101-554-12	σι στης του του του του στου του του του του του του του του του	
	Capacitor, trimmer (patting type)	
1-141-076	30 -200 pF C142,242	
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•		
	Variator Resistor	
1-221-923	200 kΩ R113,213	
1-222-119	200 kΩ R310, S301	
	Capacitor, polystyrol	
	· · · · · · · · · · · · · · · · · · ·	
1-103-675	1000 pF 50 WV ±10 % C301	

Ref. <u>No</u>.